

ABSTRACT OF THE DISCLOSURE

The present invention is generally directed to a system and method for encoding a DSL information bit stream and decoding a corresponding encoded DSL symbol. In accordance with one embodiment, an apparatus for encoding a DSL information bit stream is provided having a switch with an input configured to receive a DSL information bit stream and at least two outputs. An encoder is provided and coupled to a first output of the switch. A serial to parallel converter is provided and coupled to both an output of the encoder and a second output of the switch. Finally, a mapper is provided and coupled to an output of the serial to parallel converter through multiple paths. Preferably, a first coupling path between the serial to parallel converter and the mapper is a direct path and a second coupling path includes a second encoder.